

CHAPTER 3

AGING MANAGEMENT REVIEW RESULTS

3.0 INTRODUCTION

Review Responsibilities

Primary – NRC branch responsible for license renewal

The NRC project manager (PM) responsible for the safety review of the license renewal application (LRA) is responsible for assigning to appropriate NRC Office of Nuclear Reactor Regulation (NRR) divisions or programs the review or audit of an aging management review (AMR) or aging management program (AMP) defined in the applicant's license renewal application. The PM should document in writing to which organization each AMR or AMP is assigned. The assigned AMRs and AMPs should be reviewed per the criteria described in sections 3.1 through 3.6 of this standard review plan for review of license renewal applications (SRP-LR, NUREG-1800), as directed by the scope of each of these sections.

The NRC divisions or programs usually assigned AMRs and AMPs to review are the Division of Engineering (DE), Division of System Safety Analysis (DSSA), Division of Inspection Program Management (DIPM), and the License Renewal and Environmental Impacts Program (RLEP). Typically, the PM will assign RLEP to review the AMRs and AMPs that the LRA identifies as being consistent with the GALL report. As common exceptions to this assignment, the PM will assign to DE those AMRs and AMPs that address issues identified as emerging technical issues. Usually, AMRs and AMPs not in one of the aforementioned categories are assigned to DE.

Review of the AMPs requires assessment of ten program elements as defined in this SRP-LR. The NRC division or program assigned the AMP to review is typically assigned seven of the ten program elements to review. The other three program elements (corrective action, confirmation process and administrative controls) are typically assigned to DIPM for review.

3.0.1 Background on the Types of Reviews

Title 10 of the Code of Federal Regulations Part 54 requires that the LRA must demonstrate, for each structure and component identified in the scope of license renewal, that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis (CLB) for the period of extended operation. This aging management review consists of identifying, for each component in the scope of license renewal, the material, environment, aging effects and the AMP used to satisfy 10 CFR 54.21(a)(3).

Sections 3.1 through 3.6 of this SRP-LR describe how the AMRs and AMPs are reviewed. One method that the applicant may use to conduct its AMRs is to satisfy the NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," criteria. The applicant may choose to use methodology other than that in the GALL report to demonstrate compliance with 10 CFR 54.21(a)(3).

As stated in NUREG-1801:

The GALL report is a technical basis document to the SRP-LR, which provides the staff with guidance in reviewing a license renewal application. The GALL report should be treated in the same manner as an approved topical report that is generically applicable. An applicant may reference the GALL report in a license renewal application to demonstrate that the programs at the applicant's facility correspond to those reviewed and approved in the GALL report and that no further staff review is required, as

described in the next paragraph. If the material presented in the GALL report is applicable to the applicant's facility, the staff should find the applicant's reference to the GALL report acceptable. In making this determination, the staff should consider whether the applicant has identified specific programs described and evaluated in the GALL report. The staff, however, should not conduct a re-review of the substance of the matters described in the GALL report. Rather, the staff should ensure that the applicant verifies that the approvals set forth in the GALL report for generic programs apply to the applicant's programs. The focus of the staff review should be on augmented programs for license renewal. The staff should also review information that is not addressed in the GALL report or is otherwise different from that in the GALL report.

If an applicant takes credit for a program in the GALL report, it is incumbent on the applicant to ensure that the plant program contains all the elements of the referenced GALL program. In addition, the conditions at the plant must be bounded by the conditions for which the GALL program was evaluated. The above verifications must be documented on-site in an auditable form. The applicant must include a certification in the license renewal application that the verifications have been completed and are documented on-site in an auditable form.

The GALL report contains one acceptable way to manage aging effects for license renewal. An applicant may propose alternatives for staff review in its plant-specific license renewal application. Use of the GALL report is not required, but its use should facilitate both preparation of a license renewal application by an applicant and timely, uniform review by the NRC staff.

In addition, the GALL report does not address scoping of structures and components for license renewal. Scoping is plant specific, and the results depend on the plant design and current licensing basis. The inclusion of a certain structure or component in the GALL report does not mean that this particular structure or component is within the scope of license renewal for all plants. Conversely, the omission of a certain structure or component in the GALL report does not mean that this particular structure or component is not within the scope of license renewal for any plants.

In this SRP-LR, section 3.X.2 presents acceptance criteria describing methods to determine whether the applicant has met the requirements of NRC's regulations in 10CFR 54.21. Section 3.X.3 presents the review procedures to be followed. Some rows (line-items) in the AMR tables (in chapters II through VIII of the GALL Report Vol. II) establish the need to perform "further evaluations." The acceptance criteria for satisfying these "further evaluations" are found in sections 3.X.2.2. The related review procedures are provided in 3.X.3.2.

In Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses," the NRC has endorsed an acceptable methodology for licensees to structure license renewal applications. Using the guidance described in the aforementioned Regulatory Guide, the applicant documents in the LRA whether the AMR line-item is consistent or not consistent with the GALL report.

A portion of the AMR is the assessment of the aging management programs. The applicant may choose to use an aging management program that is consistent with an AMP defined in the GALL report, or may choose a plant-specific AMP.

If an applicant chooses to use an AMP that is consistent with the GALL report, the applicant may take one or more exceptions to specific AMP program elements. Exceptions are specified for criteria in the AMP program elements that the applicant does not intend to meet or to implement.

In some cases, an applicant may choose an existing plant program, which does not currently meet all the elements defined in the GALL AMP. If this is the situation, the applicant may make a commitment to augment the existing program to satisfy the GALL AMP element prior to the period of extended operation. This commitment is defined as an enhancement. Enhancements are revisions or additions to plant procedures or program activities that the applicant will implement prior to the period of extended operation. Enhancements may expand, but not reduce, the scope of an AMP.

As a result of the criteria established in 10 CFR Part 54, and the guidance provided in NUREG-1800, NUREG-1801, Regulatory Guide 1.188, and the applicant's exceptions and/or enhancements to a GALL AMP, the following types of AMRs and AMPs are part of the LRA and require NRC staff audit and review. In this context, an audit is defined as those appraisals addressing AMRs or AMPs consistent with the GALL report whereas a review is defined as those appraisals addressing AMRs or AMPs stated to be not consistent with the GALL report. An audit may also include technical assessments of exceptions or enhancements to the GALL AMP program elements.

AMRs

- AMRs consistent with the GALL report, for which further evaluation is not recommended
- AMRs consistent with the GALL report, for which further evaluation is recommended
- AMRs not consistent with the GALL report

AMPs

- AMPs consistent with GALL AMPs
- Plant-specific AMPs

FSAR Supplement

- Each LRA AMP will provide an FSAR supplement which defines changes to the FSAR that will be made as a condition of a renewed license. This FSAR supplement will define the aging management programs the applicant is crediting to satisfy 10CFR54.21(a)(3).